# PROJECT HOPE

# Increasing the Quality of Child Survival and Maternal Care Services in the Navoi Oblast of Uzbekistan

Cooperative Agreement No.: FAO-A-00-99-00026-00

# **Baseline Survey Report**

March, 2004

Submitted to: USAID/GH/HIDN Child Survival and Health Grants Program Ronald Reagan Building Room 3.7.75 1300 Pennsylvania Avenue Washington, D.C. 20523-3700

# **Submitted by:**

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# TABLE OF CONTENTS

### I. INTRODUCTION

- 1. Developing Innovative Approaches and Scaling-up Maternal Child Health and Reproductive Health Interventions in Navoi, Uzbekistan
- 2. Description of the Problem
- 3. Problem Solution
- 4. Baseline Study Objectives

# II. METHODOLOGY

- 1. The Questionnaires
- 2. Sample Size and Study Population
- 3. Study Implementation

### III. RESULTS

**Key Indicators** 

Differences between Rayons

### SECTION 1. IMCI AND SAFE MOTHERHOOD INTERVENTIONS

- a. Mother's Background Characteristics
- b. Breastfeeding and Infant/Child Nutrition
- c. Childhood Immunization
- d. Childhood Illness
- e. Peri-natal Care
- f. Child Spacing

# SECTION 2. FAMILY PLANNING: WOMEN OF REPRODUCTIVE AGE

- a. Women's Background Characteristics
- b. Reproduction and Child Spacing
- c. Knowledge and Ever Use of Contraception
- d. Access to Family Planning
- e. Use of Family Planning
- f. Diffusion of Family Planning Messages
- g. HIV/AIDS and Use of Condoms

### SECTION 3. ADOLESCENT HEALTH

- a. Respondent's Information
- b. Family Size and Marriage
- c. Knowledge of FP Methods and Where to Obtain Them
- d. Initiation of Sexual Life and Family Planning
- e. Teenage Pregnancy
- f. Abortion
- g. Sexually Transmitted Infections

# VI. GENERAL CONCLUSIONS AND DISCUSSION

#### **ANNEXES**

ANNEX A: Questionnaire 1: IMCI and Safe Motherhood Interventions

ANNEX B: Questionnaire 2: Family Planning ANNEX C: Questionnaire 3: Adolescent Health

# **ACRONYMS**

ARI Acute Respiratory Infection
CDD Control of Diarrheal Disease
COMH Central Oblast Maternity House
CRMH Central Rayon Maternity House

COH Central Oblast Hospital CRH Central Rayon Hospital

CS Child Survival

EPI Expanded Program on Immunization

FAP Feldsher midwife post

FP Family Planning

HFA Health Facility Assessment HIV Human Immunodeficiency Virus

IEC Information, Education, Communication

IMCI Integrated Management of Childhood Illnesses

KPC Knowledge, Practice, Coverage

MCH Maternal Child Health MOH Ministry of Health

ORT Oral Rehydration Therapy PHC Primary Health Care

RAW Reproductive Age Women
STD Sexually Transmitted Disease
SUB Rural community hospital
SVA Rural physician ambulatory

SVP Rural physician post

### **EXECUTIVE SUMMARY**

Project HOPE carried out a baseline study in four Rayons of the Navoi Oblast in March 2004 for its Phase II Child Survival Project. Project HOPE started activities in Uzbekistan in 1998, and submitted a follow on project proposal until year 2007 to carry out Child Survival and Reproductive health interventions, including activities with adolescents; target partners and mothers/in-law. Oblast and rayon level management committees and monitoring and evaluation systems will continue to be important in institutionalizing project gains, enabling smooth, sustainable scale-up, and capturing replicable lessons for the country as a whole.

The overall project objectives are to reduce the mortality and morbidity in children under five and women of reproductive age; to consolidate and institutionalize effective approaches in the CS-15 target area and scale these up to include other oblast rayons; and to continue developing innovative, effective, and efficient approaches that can be adapted and scaled up in Project HOPE's MCH/RH/CS projects in Uzbekistan and Kyrgyzstan.

The chosen methodology was a cross sectional study the household level. To collect this information, three questionnaires were developed: (1) mothers of children under 24 months of age, (2) women of reproductive age, and (3) adolescent population. The study questionnaires were developed by Project HOPE based on the KPC 2000+ and the Flexible Funds questionnaires for the various intervention areas. The questionnaires were then customized to make the finalized versions appropriate to the actual projects interventions and the project areas.

The questionnaires for the household level were translated into Uzbek, and the questions were applied in both Uzbek and Russian at the time of the interviews. The sample populations were a) 210 Mothers of children less than 24 months of age, b) 210 women of reproductive age, and c) 210 adolescent 5-18 years of age. The study aimed to obtain two separate sample sizes by the two Rayons that had carried out the project since 1999 (Navoi & kiziltepa), and the two Rayons that will begin activities in year 2004 (Konimeh & Nurata), doubling the sample size chosen.

# I. INTRODUCTION

# 1. Developing Innovative Approaches and Scaling-up Maternal Child Health / Reproductive Health Interventions in Navoi, Uzbekistan

Project HOPE started activities in Uzbekistan in 1998, and opened a country office in the National TB Institute on October 4, 1998. The TB Management project collaborates actively with USAID, CDC, WHO and the World Bank, and partners with the Ministry of Health (MOH), national TB Institutes, and universities. The program has provided and installed the equipment for the National Laboratory, and has been training and monitoring TB doctors in DOTS in Fergana, Andijan, Samarkand and Tashkent oblasts and may gradually expand geographical coverage.

Project HOPE's CS-15 project started in December of 1999 in Navoi oblast. A small add-on IEC/BCC project—part of a nine-country community-IMCI effort financed by GlaxoSmithKline,

complements the CS project. This project has supported the production of a "parent reminder tool," a Child Health booklet, that teaches new parents to (1) recognize common child health danger signs, (2) manage common childhood illnesses at home; (3) prevent common childhood illnesses; and (4) provides them with breastfeeding and complementary feeding instructions and an immunization schedule. This booklet has recently gone to press. It will be provided to new mothers in Project HOPE's "baby-friendly" maternities and used by home visiting/patronage nurses for home-based education.

On September 30, 2002, a Project HOPE-lead consortium, including Save the Children, the American Red Cross, The Futures Group, JHPIEGO, and the American College of Nurse Midwives, was awarded a five-year cooperative agreement "Expanding Maternal and Child Health and Reproductive Health Services in Uzbekistan and Tajikistan [MCH/RH]" by USAID/CAR. For this project, Project HOPE and Save the Children proposed to use their existing USAID/Global Health supported CS-15 and CS-18 projects in Uzbekistan and Tajikistan, respectively, as models to scale up successful approaches and innovations to the USAID/CAR priority oblasts/zones of these countries.

As required by law, Project HOPE has established agreements of cooperation with the MOH and all other Government offices to implement assistance/development programs in Uzbekistan.

This project aims to institutionalize the on-going activities in four Rayons in Navoi Oblast. The Navoi Oblast was one of three oblasts targeted for the national health reform. Navoi City is approximately a six-hour drive from Tashkent. Approximately 90% of the Oblast is desert. The oblast consists of eight rayons (districts) and two urban centers, and 1002 makhallas, each covering 15-20 families. Navoi is an industrial oblast and a major source of gold and other minerals. Some of the rayons produce minerals (e.g., Zarafshan), others are mainly engaged in agriculture (e.g., Kisiltepa), or depend on animal-raising, with nomadic Kazakh populations that live in yurts without electricity, gas, and safe water. Many Kazakh are moving to Kazakhstan, because the government has promised them land, good salaries, and additional benefits. Approximately 80% of the oblast population is Uzbek or Kazakh and 20% are Russian. The majority of the population is Muslim, but religious beliefs and practices are not easily observable in daily life.

The project will include Child Survival and Reproductive health interventions, including activities with adolescents; target partners and mothers/in-law for greater involvement. Oblast and rayon level management committees and monitoring and evaluation systems will continue to be important in institutionalizing project gains, enabling smooth, sustainable scale-up, and capturing replicable lessons for the country as a whole.

# 2. Description of the Problem

The Oblast health department (OHD) is led by the oblast chief and his technical team. Tertiary-level specialty hospitals are located in Navoi City. Rayons have their own administration and manage a health system consisting of a central rayon hospital (CRH), polyclinics in the rayon capital, SUBs (rural hospitals that are gradually being phased out), SVAs (health centers), SVPs (the new primary care clinics a general practitioner [GP] and midlevel providers, and the FAPs

(staffed by a feldsher) that are phased out in all but the most rural areas. Most of these rural providers have not participated in any medical updates, though they are the sole source of care for mothers and children. During Soviet times, many providers were Russians who returned to Russia after 1992. The capacity of the remaining health workers is very low. Essential medications are often not available at health facilities, but are free-of-charge for hospitalized children, which provide a strong incentive for referral. A network of home-visiting nurses (patronage nurses) of the MOH and the RCS provide home care and support to special groups (new mothers, large families, the disabled and/or chronically ill, elderly), but lacks health education materials and guidance on how to counsel. Roads in the target area can be impassable during summer and winter months, making emergency transport difficult. Temperature changes are extreme, and water, electricity, and phone services are not consistently available.

Navoi oblast statistics (2001) provide a picture of poor health status of young children and women of reproductive age. The reported IMR in Navoi is 17/1,000 lives births (similar to the official national rate), but the actual rate is probably at least three times higher, using standard international terminology. ARIs, diarrheal diseases, measles, anemia, and malnutrition account for 55% of under five deaths; the remainder being due to peri-natal conditions (19%), other infections (12%), non-infectious diseases (9%), and trauma (5%) (OHD, 2001). The very poor nutritional status of young children (12% of children under five are moderately to severely underweight and 84% are anemic) is an underlying factor in many infant and childhood illnesses and deaths (OHD, 2001). According to the oblast health department (2000), 12% of under-five deaths occur at home, compared to 8% for all of Uzbekistan (NPRI, 2001). An additional 20% of deaths took place during the first day of hospitalization (compared to 11% for Uzbekistan [OHD and NPRI, 2001]).

Navoi has one of the highest maternal mortality rates in the country, 73/100,000 live births compared to a national rate of 34/100,000 live births (MOH, 2001). 95% of pregnant women are anemic (39% severely anemic) - a strong contributor to perinatal and maternal deaths (MOH, 2001). Primary causes of maternal mortality are pregnancy-induced hypertension/toxemia, hemorrhage, and infection.

# 3. Problem Solution

In order to address the above health problems in the four rayons, Project HOPE's is aiming to (1) reduce the mortality and morbidity in children under five and women of reproductive age; (2) Consolidate and institutionalize effective approaches in the CS-15 target area and scale these up to include other oblast rayons; and (3) Continue to develop innovative, effective, and efficient approaches that can be adapted and scaled up in Project HOPE's MCH/RH/CS projects in Uzbekistan and Kyrgyzstan.

Project HOPE will continue to consolidate achievements in its CS-15 pilot rayons, Navoi and Kiziltepa focusing on (a) testing and implementation of SM/PEPC; (b) strengthening the sustainability of other interventions through continued oblast mentoring and capacity building; increased community involvement; monitoring, supervision, and impact assessments; and performance-based refresher trainings for providers; and (c) developing additional innovative approaches. In two new extension Rayons, Konimeh and Nurata, Project HOPE will implement

the project interventions, including (a) TOT development; (b) provider training; (c) development of supervision and monitoring systems; and (d) extensive community IEC/BCC, utilizing also NGO and media involvement.

# 4. Baseline Study Objectives

The objectives of the baseline study were to provide Project HOPE and counterparts with baseline information about the following issues:

At the household level:

- Knowledge and practice of mothers of children under two years of age about their reproductive health, and the proper role of child health interventions; target groups for health education action messages; and access and coverage rates for main reproductive and child health services:
- Knowledge and practice of women of reproductive age about their reproductive and sexual health; and access and coverage of family planning services;
- Knowledge and practice of boys and girls of 15-18 years of age about their reproductive and sexual health; abortion, STDs, HIV/AIDS and family planning services;

The purpose of the present analysis is to offer a general foundation from which Project HOPE and counterparts can improve their knowledge of the health and health related problems that exist in the four target rayons, and to establish baseline indicators in reproductive and child health against which to observe trends during the life of the project and to measure results at the end of it.

### II. METHODOLOGY

The chosen methodology was a cross sectional study at the household level. By repeating the study at the end of the project, it will ascertain the project's success in communicating health messages to women, men and family, and training community and facility-based health providers in quality reproductive, maternal and child health services.

# 1. The Questionnaires

To collect information at these two levels, three questionnaires were developed for: (1) mothers of children under 24 months of age, (2) women of reproductive age, and (3) adolescent population. The questionnaires were developed by Project HOPE based on the KPC 2000+ and the Flexible Funds questionnaires for the various intervention areas. The questionnaires were then customized to make the finalized versions appropriate to the actual projects interventions and the project areas.

The questionnaires for the household level were translated into Uzbek, and the questions were applied in both Uzbek and Russian at the time of the interviews.

# 2. Sample Size and Study Population

The selected a sample population was based on the following calculations:

Household level questionnaires

- 210 Mothers of children less than 24 months of age; 210 women of reproductive age, and 210 adolescent 15-18 years of age. 210 interviews were carried out in the pilot rayons, Navoi and Kiziltepa, and 210 interviews were carried out in the two new extension Rayons, Konimeh and Nurata totaling 1260 interviews.
- WHO 30-Cluster Study, where p=0.5, d=0.1 and z=95% (Henderson, et al., 1982).
- List of communities under the NGOs coverage area
- Random selection of first household -- next was the third household.

# 3. Study Implementation

The baseline study process begun with the design of the household level questionnaires, and its translation into Uzbek. The team of surveyors was comprised of the Project HOPE team, health providers from the oblast and rayon-level health facilities, and community members. The team and its supervisors carried out the first validation of the questionnaire translation. By the end of the training, Project HOPE and supervisors developed an action plan to implement the baseline study.

Project HOPE staff provided further support to monitor and implement the study. They entered data into an analysis package and carried out the overall analysis.

Once the analysis was done, Project HOPE organized a series of meetings to discuss the results and obtain further input. The meetings were held with supervisors and interviewers, Oblast and rayon department chiefs, and community members and leaders.

#### III. RESULTS

# **Key Indicators**

TABLE 1. KEY INDICATORS: THE RAPID CORE ASSESSMENT TOOL ON CHILD HEALTH (CATCH)	%	CI
Sentinel Measure of Child Health and Well-being		
1. Percentage of children age 0–23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)*		
Prevention of Illness/Death		
2. Percentage of children age 0–23 months who were born at least 24 months after the previous surviving child	48.3	±18.2±
3. Percentage of children age 0–23 months whose births were attended by skilled health personnel	98.1	±1.3±
4. Percentage of mothers with children age 0–23 months who received at least two tetanus toxoid injections before the birth of their youngest child**		
5. Percentage of children age 0–5 months who were exclusively breastfed during the last 24 hours	62.7	±9.0
6. Percentage of children age 6–9 months who received breastmilk and complementary foods during the last 24 hours	19.8	±8.2
7. Percentage of children age 12–23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday***	50.3	±7.2
8. Percentage of children age 12–23 months who received a measles vaccine***	88.1	±4.7
9. Percentage of children age 0–23 months who slept under an insecticide-treated	No mala	ria areas

net (in malaria risk areas) the previous night		
10. Percentage of women of reproductive age who cite at least two known ways of reducing the risk of HIV infection	36.5	±4.7
11. Percentage of mothers with children age 0–23 months who report that they		
wash their hands with soap/ash before food preparation, before feeding		
children, after defection, and after attending to a child who has defecated		
Management/Treatment of Illness		
12. Percentage of mothers of children age 0–23 months who know at least two	48.6	±4.8
signs of childhood illness that indicate the need for treatment		
13. Percentage of sick children age 0–23 months who received increased fluids and continued feeding during an illness in the past two weeks	22.7	±17.5

<sup>\*</sup> The survey did not include anthropometric measures

The results from the baseline study will be presented in three sections, each section applying to different aspects of reproductive, maternal and child health. The first section will discuss the results of Mother-Child health issues; the second section will discuss reproductive and family planning aspects; and the third will discuss adolescent reproductive and sexual health issues. The first questionnaire will examine the responses of 420 mothers of children less than two years of age, the second will examine 420 responses of women of reproductive age (15-49 years of age), the third will examine 420 responses of the adolescent population (15-18 years of age). Moreover, each section will attempt to examine the following issues:

- What are the most prevalent health problems within the community?
- What services are being offered and where do people seek assistance in case of illness?
- What new services need to be offered?
- What are the current knowledge and practices in the community that may be affecting demand and utilization of specific health care services?
- How health services could increase coverage and quality to better reach their target populations?
- What are areas for further investigation?

# Differences between Rayons

This report presents the results of the Project HOPE activities in four Rayon together and separately between the two Rayons that had carried out the project since 1999 (Navoi & kiziltepa), and the two Rayons that will begin activities in year 2004 (Konimeh & Nurata). The purpose of dividing the analysis is to give an overall view of the Project HOPE's initial status and the individual challenges of each pair of Rayons. However, the intention of the authors is not to compare Rayons, but to establish the differences caused by socio-demographic variables and other external factors that may affect the health status of the populations under study.

# SECTION 1. IMCI AND SAFE MOTHERHOOD INTERVENTIONS (MOTHERS OF CHILDREN LESS THAN 24 MONTHS OF AGE)

# a. Mother's Background Characteristics

<sup>\*\*</sup> The Uzbekistan MOH does not provide TT to pregnant women, only immunoglobulin to suspected cases of tetanus infection.

<sup>\*\*\*</sup> The MOH does not provide immunization cards to families; therefore, the above indicators were calculated based only on the mothers' recall.

Table 1 shows some of the basic characteristics of the mothers of children less than 24 months of age sample population. Of the women interviewed all (100%) had some level of education, and 7.9% had only primary education. There were no significant differences among the four Rayons.

By examining the language interviewees feel most comfortably communicating, Uzbeck is the most common language (90.6%) follow by Kazakh (7.2%) and then by Tajik (5.0%). When comparing the new and old Rayons, in Konimeh and Nurata, 14.5% of the population felt more comfortable communicating in Kazakh. However, there was an overlap of results, meaning that although, people can speak more than one language, yet Uzbek is the most preferred language for communicating.

When examining the nature of the head of household, 66.3% reported that the respondent's father in law is the head of the family, manning also that the majority of the population live in an extended family context. 30.3% reported that their husbands were the heads of the household. The majority of interviewed women were housewives with a small percent (3%) of salaried workers. There were no significant differences when comparing old and new project Rayons.

Finally, the average age of the women interviewed was 26 years old, and 11 months was the average age of their youngest child.

TABLE 2. GENERAL CHARACTERISTICS OF THE INTERVIEWED MOTHERS: SCHOOLING, LANGUAGE, HEAD OF HOUSEHOLD, AND OTHER CHILD CARETAKERS			
Indicators	Navoi & kiziltepa % (n=210)	Konimeh & Nurata % (n=210)	Total % (n=420)
Highest level of education attained			
Primary	11.0	4.8	7.9
Incomplete secondary	27.3	35.9	31.6
Secondary/special secondary	54.1	52.6	53.3
Higher	7.7	6.7	7.2
Language interviewees feel most comfortable communicating			
Uzbeck	99.0	82.1	90.6
Tajik	5.2	4.8	5.0
Kazakh	0.0	14.5	7.2
Russian	0.5	0.0	0.2
Head of household			
Mother (respondent)	1.0	3.3	2.2
Husband/Partner	31.6	29.0	30.3
Relative	1.9	0.5	1.2
Father in law	65.5	67.1	66.3
Work outside of home to earn money and type of work:			
Housewife	96.2	97.6	96.9
Handicrafts	0.0	0.0	0.0
Harvesting/Field Worker	0.0	0.0	0.0
Shop Keeper/Street Vendor	0.0	0.0	0.0
Salaried Worker	3.8	2.4	3.1
Continuous Variables	Average	Average	Average
	(n=210)	(n=210)	(n=420)
Age of mothers	25.7	26.9	26.3
Age of children under two	11.4	10.5	11.0

# b. Breastfeeding and Infant/Child Nutrition

An important component of infant health is the prompt initiation of breastfeeding and exclusive breastfeeding until the infant is six months of age (World Health Organization). This practice significantly reduces disease and malnutrition in infants. Of the mothers interviewed, more than two thirds (62.6) initiated breastfeeding in the first hour after birth and the same percentage was observed (62.7%) among women with infants less than six months of age, who reported they were exclusively breastfeeding at the time of the interview (Table 3). Population at the old rayons showed that 81.7% of mothers initiated breastfeeding within first hour after birth, as opposed to 43.5% at the new rayons. The same difference is shown for the exclusive breastfeeding indicator.

The World Health Organization also recommends gradually introducing solid/semi-solid foods to infants at six months of age, and that the mothers continue breastfeeding until the infant is two or more years of age. The introduction of foods is an important step in infant growth, and it is important that mothers know how and when to introduce foods to their infants. The percentage of infants aged six to ten months old that were being given solid or semisolid foods was 19.8%. On the other hand, the majority of infants between 20 and 23 months of age (33.9%) were still being breastfed. Moreover, although the majority of mothers initiated breastfeeding early on and continued breastfeeding up to two years of age, there are many who either were not breastfeeding infants up to six months of age exclusively or who had not introduced foods to children between six to ten months of age. Small differences were observed when comparing old and new intervention areas.

TABLE 3. BREASTFEEDING AND INFANT/CHILD NUTRITION			
Indicators	Navoi & kiziltepa % (n=208)	Konimeh & Nurata % (n=209)	Total % (n=417) CI
Breastfeeding Initiation: Percent of children aged 0-23 months who were breastfed within the first hour after birth	81.7	43.5	62.6 ±4.6
	% (n=48)	% (n=62)	% (n=110) CI
Exclusive Breastfeeding Rate: Percent of infants aged 0-5 months who were fed breastmilk only in the last 24 hours	81.3	48.4	62.7 ±9.0
·	% (n=49)	% (n=42)	% (n=91) CI
Complementary Feeding Rate: Percent of infants aged 6-9 months who received breastmilk and solid foods in the last 24 hours	8.2	33.3	19.8 ±8.2
	% (n=36)	% (n23=)	% (n=59) CI
Continued Breastfeeding: Percent of children aged 20-23 months who are still breastfeeding	36.1	30.4	33.9 ±12.1
Continuous Variables	Average (n=209)	Average (n=208)	Average (n=417)
Times infant/child eat semi-solid foods yesterday during the day or at night	3.0	2.7	2.8

### c. Childhood Immunization

In Uzbekistan, immunization cards are kept at health services. Families do not possess any type of written information about their children's immunization status. Some programs are currently

trying to change this situation by providing immunization cards to the beneficiary population, so parents and caretakers will be able to keep track of what vaccines and doses their children have received. Therefore, the present baseline study aimed to obtain information as recalled and reported by the mother. Table 3 displays the immunization status of children 12-23 months of age. The indicators calculations followed the CSTS recommendations, as an attempt to have population-base immunization access and coverage.

Of the mothers interviewed, 96.2% of the mothers said their children had been vaccinated with DPT1 and 88.1% reported having received measles vaccine, and 50.3% have received the full vaccination schedule (Table 4). In addition, 95.7% of the mothers reported that their children received BCG vaccine. There were small differences (CIs overlapped) when comparing new and old intervention areas.

TABLE 4. CHILDHOOD IMMUNIZATION			
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total
	% (n=96)	% (n=89)	% (n=185) CI
EPI Access*: Percent of children aged 12-23 months who received DPT1	94.8	97.8	96.2 ±2.8
Measles Vaccination Coverage*: Percent of children aged 12-23 months who received measles vaccine	94.8	80.9	88.1 ±4.7
EPI Coverage I*: Percent of children aged 12-23 months who received BCG, DPT3, OPV3, and measles vaccines before the first birthday	58.3	41.6	50.3 ±7.2
BCG Vaccination Coverage*: Percent of children aged 12-23 months who received BCG vaccine	99.0	92.1	95.7 ±2.9

#### d. Childhood Illness

The IMCI strategy educates mothers to recognize signs and symptoms of a severe illness that would cause them to seek help. 48.6% of the mothers recognized at least TWO of those signs, and 36.9% recognized at least TWO of signs of danger when have diarrhea. There were significant differences when comparing old and new project areas.

Diarrheal illnesses were not a prevalent illnesses in the communities interviewed. Only 5.2% of the mothers interviewed in the baseline study reported that their child (under 2 years of age) had been ill with diarrhea in the last two weeks (Table 5). Diarrheal illnesses that go untreated can lead to dehydration, malnutrition, and, hence, an increased susceptibility to further infections. In order to prevent these problems from arising, it is essential that children with diarrheal illnesses receive proper care and treatment.

Mothers with children under two years of age who had been ill with diarrhea in the last two weeks before the interview were asked about the eating and drinking practices of their children during that period. While 15% of the mothers said their children drank the same amount of fluids or more fluids than usual, 19% of the children ate the same amount of food or more food than usual.

In order to prevent dehydration, which often occurs in children with diarrheal illnesses, oral rehydration therapy (ORT) is a highly recommended treatment for all children with diarrhea. Of the mothers who sought treatment, 31% treated their children with oral rehydration therapy

TABLE 5. CHILDHOOD ILLNESS & DIARRHEA CASE MANAGEMENT (DCM)			
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total
	% (n=210)	% (n=210)	% (n=420) CI
Maternal Knowledge of Child Danger Signs: Percent of mothers			
of children aged 0-23 months who know at least TWO signs of	65.2	31.9	$48.6 \pm 4.8$
childhood illness that indicate the need for treatment			
Maternal Knowledge of Child Danger Signs: Percent of mothers			
who know at least TWO signs childhood diarrhea that indicate the	54.3	19.5	$36.9 \pm 4.6$
need for treatment			
Percent of children who had diarrhea in the last two weeks prior	4.8	5.7	5.2 ±2.1
to the survey			
	% (n=10)	% (n=12)	% (n=22) CI
ORT Use During a Diarrheal Episode: Percent of children aged 0-			
23 months with diarrhea in the last two weeks who received oral	50.0	16.7	$31.8 \pm 19.5$
rehydration solution (ORS) and/or recommended home fluids			
Increased Fluid Intake During a Diarrheal Episode: Percent of			
children aged 0-23 months with diarrhea in the last two weeks	37.5	0.0	$15.0 \pm 14.9$
who were offered more fluids during the illness			
Increased Food Intake During a Diarrheal Episode: Percent of			
children aged 0-23 months with diarrhea in the last two weeks	22.2	16.7	19.0 ±16.4
who were offered the same amount or more food during the	22.2	10.7	17.0 ±10.4
illness			
Percentage of sick children age 0–23 months who received			
increased fluids and continued feeding during an illness in the	30.0	16.7	$22.7 \pm 17.5$
past two weeks			
Care-seeking for Diarrhea: Percent of children aged 0-23 months			
with diarrhea in the last two weeks whose mothers sought outside	0.0	0.0	0.0
advice or treatment for the illness			
Care seeking decision making: Person who decided seeking			
outside advise or treatment for the illness			
Respondent	50.0	66.7	58.8
Husband/Partner	37.5	22.2	29.4
Respondent's Mother	0.0	0.0	0.0
Mother-in-law	37.5	55.6	47.1
Friends/Neighbors	0.0	0.0	0.0

Respiratory illness, especially pneumonia, was one of the most prevalent health problems in the communities interviewed. Of the mothers interviewed, 54% said their child had suffered from some type of lower respiratory illness with rapid breathing and chest indrawings in the two weeks prior to the interview (Table 6). 88% of mothers sought some type of treatment for their child's illness.

TABLE 6. ACUTE RESPIRATORY INFECTIONS			
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total
	% (n=210)	% (n=210)	% (n=420) CI

Maternal Knowledge of Child Danger Signs: Percent of mothers who know at least ONE sign childhood respiratory illness that indicate the need for treatment	18.1	11.9	15.0 ±3.4
Percent of children with cough and fast/difficult breathing in the last two weeks prior to the survey	57.4	51.6	54.1 ±4.8
	% (n=27)	% (n=32)	% (n=59)
ARI Care-seeking: Percent of children aged 0-23 months with cough and fast/difficult breathing in the last two weeks who were taken to a health facility or received antibiotics from an alternative source	85.2	90.6	88.1 ±8.3
Care seeking decision making: Person who decided seeking			
outside advise or treatment for the illness			
Respondent	62.5	40.0	50.0
Husband/Partner	29.2	36.7	33.3
Respondent's Mother	4.2	3.3	3.7
Mother-in-law	37.5	30.0	33.3

### e. Peri-natal Care

Respondents were asked questions concerning the care they sought and received during their last pregnancy.

Ninety nine percent of the women interviewed had attended a health service for a prenatal exam during their last pregnancy (Table 7). The Uzbekistan MOH does not provide Tetanus Toxoid to pregnant women, but only immunoglobulin to suspected cases of infection. Most (97%) women reported to live les than one hour away from health center. Little more than half had received iron supplementation. Most of these women had received orientation and counseling during pregnancy, but only 47% know danger signs during pregnancy.

98% reported that a trained health professional had cut the umbilical cord after delivery, and 69% placed the baby right besides the mother after delivery. Differences between old and new Rayons were remarkably different about baby-friendly practices.

Finally 77% of interviewed women have had a postpartum check up.

TABLE 7. CARE DURING PREGNANCY, DELIVERY AND POSTPARTUM			
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total
	% (n=210)	% (n=210)	% (n=420) CI
CARE DURING PREGNANCY			
Prenatal Care Coverage: Percent of mothers who had at least one prenatal visit prior to the birth of her youngest child less than 24 months of age	100.0	99.5	99.8 ±4.0
Iron Supplementation Coverage: Percent of mothers who received/bought iron supplements while pregnant with the youngest child less than 24 months of age	65.6	42.6	54.1 ±4.8

Prenatal Care Counseling: Counseling given to pregnant women			
on last pregnancy by theme			
Delivery preparations	94.7	94.0	94.4
Breastfeeding	95.2	78.6	87.7
Child spacing/FP	90.3	76.2	84.0
EPI	76.3	66.1	71.7
Danger signs of pregnancy	81.6	63.1	73.3
STIs Prevention	81.6	57.1	70.9
Prenatal Care Geographical Access: Percent of pregnant women who report living less than ONE hour from nearest health facility	97.6	96.7	97.1 ±1.6
Maternal Knowledge of Pregnancy Danger Signs: Percent of mothers who know at least TWO signs of danger during pregnancy that indicate the need for treatment	60.5	33.3	46.9 ±4.8
DELIVERY AND IMMEDIATE NEWBORN CARE			
Delivery by Skilled Health Personnel: Percent of children aged 0- 23 months whose delivery was attended by a skilled health personnel	100.0	96.2	98.1 ±1.3
Placement at Birth: Percent of children aged 0-23 months who were placed with the mother immediately after birth	82.4	55.7	69.0 ±4.4
POSTPARTUM CARE			
Postpartum Contact: Percent of mothers who had at least one postpartum check-up	89.0	64.8	76.9 ±4.0
Postnatal Care Counseling: Counseling given to postpartum			
women on last pregnancy by theme			
Breastfeeding	99.0	93.5	96.3
Lactational Amenorrhea Method	68.9	43.3	56.3
Family planning	63.6	52.7	58.3

# f. Child Spacing

Of women interviewed, 70% started using a FP method right after the last delivery, and 99% started using within the first seven weeks after last delivery.

TABLE 8. CHILD SPACING			
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total
	% (n=210)	% (n=210)	% (n=420) CI
Birth Spacing: Percent of mothers who started using a FP method after last delivery	78.6	62.4	70.5 ±4.4
	% (n=165)	% (n=131)	% (n=296)
Time when mothers started using FP method:			
During first 6 weeks	44.2	28.6	37.5
After 7 weeks	54.5	70.6	61.5
Other	1.3	0.8	1.0

# SECTION 2. FAMILY PLANNING: WOMEN OF REPRODUCTIVE AGE (15-49 YEARS OLD)

# a. Women's Background Characteristics

99% of the reproductive age women interviewed had some level of education and 7.4% had a higher education. 93% felt more comfortable speaking Uzbek and the average age was 31 years old.

TABLE 9. GENERAL CHARACTERISTICS OF THE INTERVIEWED MOTHERS: SCHOOLING, LANGUAGE, HEAD OF HOUSEHOLD, AND OTHER CHILD CARETAKERS			
Indicators	Navoi & kiziltepa % (n=209)	Konimeh & Nurata % (n=209)	Total % (n=418)
Highest level of education attained	, ,	, ,	,
Primary	1.9	0.5	1.2
Incomplete secondary	30.6	27.3	28.9
Secondary/special secondary	58.9	66.0	62.4
Higher	8.6	6.2	7.4
Language interviewees feel most comfortable communicating*			
Uzbek	96,7	90.9	93.8
Tajik	3.3	8.6	6.0
Kazakh	0.0	0.0	0.0
Russian	0.5	1.0	0.7
Continuous Variables	Average (n=210)	Average (n=210)	Average (n=420)
Age of interviewed women	30.9	32.5	31.7

<sup>\*</sup> Note. Given that multiple answers were allowed, the table represents the number of respondents, not responses.

# b. Reproduction and Child Spacing

48% of the population had a birth interval of at least 24 months between last two children. When women interviewed were asked whether are days in which women are most fertile period 36.9% responded affirmative, and only 9.3% reported that those days are halfway between menstrual cycles.

TABLE 10. REPRODUCTION AND CHILD SPACING						
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total			
	% (n=14)	% (n=15)	% (n=29) CI			
Adequate Birth Interval Between Youngest Surviving Children: Percent of children aged 0-23 months who were born at least 24 months after the previous surviving child	50.0	46.7	48.3 ±18.2			
Adequate Birth Interval Between Youngest Surviving Children (Less Stringent Criteria): Percent of children aged 0-23 months who were born at least 36 months after the previous surviving child	21.4	6.7	13.8 ±12.6			
	% (n=210)	% (n=210)	% (n=420)			
Knowledge of the Reproductive Cycle: Percent of women who report that there are days in their menstrual cycle when are most likely to get pregnant	30.5	43.3	36.9 ±4.6			
Knowledge of the Reproductive Cycle: Percent of women who report that women are likely to get pregnant halfway between two menstrual periods.	11.9	6.7	9.3 ±2.8			

# c. Knowledge and Ever Use of Contraception

When women were asked about knowledge of FP methods, where to obtain them and if she ever used them, IUD, LAM pills and injectables were the most know, and emergency contraception, and male sterilization were the least known. The same trend was observed when asked about where to obtain them and if ever used. There were no differences observed when comparing old and new project rayons. The percentage of women who know where to obtain at least one method is close to hundred percent, but there the method mix is skewed towards IUD. Hence, physical access to FP services is not a problem, but probably services are not offering a wide range of FP methods.

TABLE 11. KNOWLEDGE METHOD*									
Indicators	Nav	voi & kizilt	ера	Konimeh & Nurata		ırata	Total		
		% (n=210)	)		% (n=210)	)		% (n=420)	
	knows	obtain	used	knows	obtain	used	knows	obtain	used
Female Sterilization	80.9	68.5	4.3	57.5	50.5	3.9	69.2	59.1	4.1
Male Sterilization	15.3	9.9	0.5	9.7	7.4	0.0	12.5	8.6	0.3
Pill	86.1	80.8	17.4	74.9	70.1	13.9	80.5	75.4	15.7
Iud	98.1	98.0	89.1	98.6	95.1	83.3	98.3	96.6	86.3
Injectables	79.4	75.9	14.7	79.7	75.5	11.7	79.6	75.7	13.2
Condom	72.7	65.0	14.7	56.0	51.0	11.1	64.4	58.0	12.9
Foam or Jelly	23.9	19.2	0.5	9.2	6.4	0.0	16.6	12.8	0.3
Lactational Amenorrhea	84.7	84.7	67.9	77.8	76.5	51.1	81.3	80.6	59.6
(Lam)	04.7	04.7	07.9	77.0	70.5	31.1	01.5	80.0	39.0
Standard Days Method	53.1	46.3	15.8	44.4	42.6	11.1	48.8	44.5	13.5
Rhythm or Periodic	34.4	33.5	14.7	22.7	22.1	7.8	28.6	27.8	11.3
Abstinence	34.4	33.3	14./	22.1	22.1	7.0	26.0	27.0	11.5
Withdrawal	51.2	48.8	25.5	38.2	37.7	19.4	44.7	43.2	22.5
Emergency Contraception	14.4	11.8	0.5	5.3	5.4	1.7	9.9	8.6	1.1

Note. Given that multiple answers were allowed, the table represents the number of respondents, not responses.

# d. Access to Family Planning

97 percent of the interviewed population reported to know a source of FP methods their communities and 93% reported living 5 km. of a FP distribution point.

TABLE 12. ACCESS TO FP SERVICES AND DISTANCE FROM SDP						
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total			
	% (n=197)	% (n=199)	% (n=396) CI			
Access: Knowledge of sources of child spacing methods within interviewees' communities	97.6	97.6	97.6 ±1.5			
Access: Percentage of population who live within 5 km of a family planning/reproductive health service delivery point	95.4	91.0	93.2 ±2.5			

# e. Use of Family Planning

72% of women of reproductive age, who do not want another child in next two years and are not pregnant were using a FP method. When observing the method mix, UID was the most widely used (82%), followed by female sterilization (3.3%) and withdrawal, which might be showing a

severe shortage or access of some FP methods. 62% of interviewed women had received proper counseling (contraceptive choices, common side effects, and when to return for follow-up), which reinforces the fact that counseling and informed choices is occurring at the service delivery level, but the major problem could be either shortage of methods or its distribution.

The latest DHS<sup>1</sup> study, reported 67.7% contraceptive use for all methods (65% for urban areas and 69% for rural areas).

TABLE 13. CHILD SPACING INDICATORS							
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total				
	% (n=178)	% (n=190)	% (n=368) CI				
Contraceptive Use Among RA Women Who Want to Limit or							
Space Births: Percent of non-pregnant women who desire no more	73.6	71.6	72.6 +4.6				
children in the next two years, or are not sure, who are using a	73.0	71.0	72.0 ±4.0				
modern method of child spacing							
Contraceptive Use: Current of FP methods by type*							
Female Sterilization	2.3	4.3	3.3				
Male Sterilization	0.0	0.0	0.0				
Pill	1.5	1.4	1.5				
IUD	87.1	78.4	82.7				
Injectables	2.3	2.2	2.2				
Implants	0.0	0.0	0.0				
Condom	3.0	2.2	2.6				
Foam/Jelly	0.0	0.7	0.4				
Lactational Amen. Method	1.5	2.2	1.8				
Standard Days Method	1.5	2.2	1.8				
Periodic Abstinence (Other Than Standard Days	0.8	0.7	0.7				
Withdrawal	0.0	6.5	3.3				
	% (n=131)	% (n=136)	% (n=267) CI				
Counseling: Percentage of family planning clients who receive							
counseling** on contraceptive choices, common side effects, and	73.5	52.2	62.7 ±5.8				
when to return for follow-up							
Continuous variable	Average	Average	Average				
Commuous variable	(n=131)	(n=136)	(n=267)				
Average duration of respondent's or husband/partner has been using CURRENT METHOD in months	42.4	40.3	41.4				

<sup>\*</sup>Note. Given that multiple answers were allowed, the table represents the number of respondents, not responses.

# f. Diffusion of Family Planning Messages

More than half (56%) of interviewed women had discussed FP issues in the past year, and the most common persons were friends, followed by husband or partner. 57% of women reported that were visited by a health worker and 60% visited a health facility, and the most popular media the population is using is television.

<sup>1</sup> Uzbekistan Health Examination Survey 2002. Preliminary Report. Ministry of Health of Uzbekistan, State Department of Statistics, MEASURE DHS+ ORC Macro. May 2003.

<sup>\*\*</sup>Note. "Adequate counseling" is defined as whether client has received information on: a) contraceptive choices, b) correct use of the method accepted, c) common side effects, and d) when to return for follow-up services, however, the current survey, only collected data on options "a," "c" and "d."

TABLE 14. DIFFUSION OF FAMILY PLANNING MESSAGES							
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total				
	% (n=210)	% (n=210)	% (n=420) CI				
Percentage of respondents who report discussing FP issues with somebody in the past 12 months	63.3	49.0	56.2 ±4.7				
	% (n=122)	% (n=102)	% (n=224)				
Persons respondents have chosen to discussed FP issues in the past 12 months:							
Husband/Partner	46.7	41.2	44.2				
Mother	6.6	10.8	8.5				
Father	0.8	0.0	0.4				
Sister(S)	24.6	17.6	21.4				
Daughter	7.4	2.0	4.9				
Son	2.5	1.0	1.8				
Mother-in-law	11.5	21.6	16.1				
Friends/Neighbors	69.7	68.6	69.2				
	% (n=210)	% (n=210)	% (n=420)				
Percentage of respondents who reported that were visited by a health worker to talk about family planning	71.7	43.1	57.2 ±4.7				
Percentage of respondents who reported that visited health a health facility for care of herself (or her child)	69.0	52.4	60.7 ±4.7				
Percent of respondents who have seen or heard any messages about family planning by any of the following means							
Radio	20.4	13.5	17.3				
Newspaper	29.6	25.8	27.9				
Television	73.5	77.3	75.2				
Health Fair	69.9	38.7	55.7				

# g. HIV/AIDS and Use of Condoms

97% of the women of RA have ever heard about HIV/AIDS in the surveyed areas, and 36.5% reported to know at least two ways to avoid AIDS; 90% admitted can be transmitted from mother to son, and 76 believed it was during pregnancy, 21% during delivery and 47% during breastfeeding.. The DHS-2002 reported that 90.1% of the population has ever heard about HIV/AIDS (93.5% urban and 87.9% rural).

TABLE 15. HIV/AIDS PREVENTION AND USE OF CONDOMS							
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total				
	% (n=210)	% (n=210)	% (n=420) CI				
Percent of respondents who ever heard of an illness called AIDS	98.6	95.7	97.1 ±1.6				
	% (n=207)	% (n=201)	% (n=408)				
Respondents Knowledge of HIV/AIDS Prevention: Percent of respondents who know of at least TWO ways of avoiding HIV/AIDS transmission (abstain from sex, use condoms, avoid contact with contaminated blood)	33.8	39.3	36.5 ±4.7				
Percent of respondents who know that the HIV can be transmitted from mother to son	90.3	91.5	90.9 ±2.8				

Respondents who know that HIV can be transmitted during:			
Pregnancy	74.9	77.6	76.2
Delivery	21.4	21.9	21.6
Breastfeeding	41.2	47.0	47.0
	% (n=5)	% (n=4)	% (n=9)
Percent of respondents who used condom during last sexual intercourse with other than spouse/stabile partner	83.3	100.0	90.0

# SECTION 3. ADOLESCENT HEALTH (15-18 YEARS OF AGE)

### a. Respondent's Information

420 adolescents were interviewed (36% boys and 63% girls), 80% were going to a school and most (92%) felt more comfortable communication in Uzbek. The average age of the adolescents interviewed was 16 years old.

TABLE 16. GENERAL CHARACTERISTICS OF THE INTERVIEWED ADOLESCENT: SCHOOLING,					
LANGUAGE AND AGE					
Indicators	Navoi & Konimeh & kiziltepa Nurata		Total		
	% (n=210)	% (n=210)	% (n=420)		
Gender of interviewees					
Boys	34.3	39.5	36.9		
Girls	65.7	60.5	63.1		
Currently school/licey/college/institute attendance by gender					
Boys	80.6	86.7	83.9		
Girls	76.6	78.0	77.3		
Language interviewees feel most comfortable communicating					
Uzbeck	96.7	89.0	92.9		
Tajik	4.8	5.2	5.0		
Kazakh	1.0	4.3	4.3		
Russian	1.9	1.0	1.0		
Continuous Variables	Average	Average	Average		
	(n=210)	(n=210	(n=410)		
Age of adolescents					
Boys	16.5	16.4	16.5		
Girls	16.7	16.8	16.7		

# b. Family Size and Marriage

Cultural family traditions in Uzbekistan are of extreme importance, and an important one is for marring. 64% of adolescent boys believe should choose themselves whom to marry, while 46% of adolescent girls believe should choose their husband, on the other hand, 15% of boys believe their parents should choose, while 24% of girls believed the same.

When adolescents were ask what they would do if a girl gets pregnant, 87% of the boys responded should marry, while 76% of the girls believe the same thing; 6% of the boys would seek abortion services and 9% of the girls would do it.

When asked about perception as to when should a man (22) and women (20) get married and the age they believe were actually getting marriage (21 for men and 19 for women), there were small

differences, meaning that adolescent do not believe early marriage is a problem. Finally, when adolescents were asking about the ideal number of children, both coincide that 3 is the appropriate number.

TABLE 17. ADOLESCENTS' PERCEPTION OF FAMILY SIZE AND MARRIAGE							
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total				
	% (n=210)	% (n=210)	% (n=420)				
Marriage: Adolescent perception as to who should decide whom							
to marry:							
For Boys							
Choose own husband/wife	63.9	65.1	64.5				
Parents should decide	15.3	15.7	15.5				
Both	20.8	19.3	20.0				
For girls							
Choose own husband/wife	44.2	49.6	46.8				
Parents should decide	29.7	19.7	24.9				
Both	26.1	30.7	28.3				
Marriage: Adolescents preferred options when getting							
pregnant/getting a girl pregnant							
For boys							
Marry her	86.9	87.3	87.1				
Abortion	8.2	5.6	6.8				
Other	4.9	7.0	6.1				
For girls							
Marry him	76.3	77.1	76.7				
Abortion	11.3	8.3	9.8				
Other	12.4	14.6	13.5				
Continuous Variables	Average	Average	Average				
	(n=210)	(n=210)	(n=420)				
Age of Marriage: Adolescents' perception of the appropriate age	,	,	,				
men should marry	22.5	22.4	22.5				
women should marry	20.6	20.1	20.3				
Age of Marriage: Adolescents' perception of the age men and							
women are currently marrying:							
men	21.1	22.3	21.7				
women	19.1	19.2	19.2				
Ideal Number of Children: Adolescents' perception of the ideal							
number of children for a family:							
For boys	3.2	3.3	3.2				
For girls	3.1	3.1	3.1				

# c. Knowledge of FP Methods and Where to Obtain Them

Table 18 shows that adolescents have very limited knowledge of FP methods and where to obtain them. The most widely know FP method was IUD with 84%, but the second most know was pills with 42%, then the numbers go smaller for all other FP methods.

TABLE 18. KNOWLEDGE OF FP METHODS AND WHERE TO OBTAIN THEM *						
Indicators	Navoi & kiziltepa Konimeh & Nurata		Total			
	% (n	=210)	% (n=210)		% (n=420)	
	knows	obtain	knows	obtain	knows	obtain
Female Sterilization	43.9	33.3	25.0	24.3	35.6	29.1

Male Sterilization	9.6	3.3	3.2	1.9	6.8	2.7
Pill	48.4	47.5	35.5	34.0	42.7	41.3
Iud	83.4	71.7	84.7	76.7	84.0	74.0
Injectables	40.1	39.2	27.4	22.3	34.5	31.4
Condom	26.8	30.0	29.0	24.3	27.8	27.4
Foam or Jelly	1.9	0.8	1.6	1.0	1.8	0.9
Lactational Amenorrhea (Lam)	13.4	13.3	3.2	2.9	8.9	8.5
Standard Days Method	10.8	11.7	4.0	3.9	7.8	8.1
Rhythm or Periodic Abstinence	7.6	10.0	4.0	4.9	6.0	7.6
Withdrawal	7.0	6.7	2.4	1.9	5.0	4.5
Emergency Contraception	5.1	5.8	2.4	2.9	3.9	4.5

Note. Given that multiple answers were allowed, the table represents the number of respondents, not responses.

The adolescents were asked about sexual attitudes regarding FP use and knowledge of the reproductive cycle. 17% of the boys replied that women should decide what FP method to use and 33% that is a decision of both, while 34% of the girls replied that woman should decide and 32 percent with both partners.

When asking about knowledge of the reproductive cycle, only 3% of the boys knew that there are days when women are more likely to get pregnant, and 13% of the girls, and when specifically asked when those days were, only 1.9% of the boys knew it was half way between menstrual cycles, and 08% 0of the girls.

TABLE 19. FP METHOD DECISION AND REPRODUCTIVE CYCLE KNOWLEDGE						
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total			
	% (n=210)	% (n=210)	% (n=420)			
Adolescents perception as to whom should decide what FP						
method to use:						
For boys						
Woman	19.7	16.0	17.8			
Man	29.6	33.3	31.6			
Both partners	36.6	30.9	33.6			
For girls						
Woman	35.6	32.3	34.0			
Man	8.9	13.4	11.1			
Both partners	28.9	37.0	32.8			
Knowledge of the Reproductive Cycle: Percent of boys and girls						
who know that there is a period when women are more likely to						
get pregnant:						
For boys	2.8	4.8	3.9			
For girls	13.8	12.6	13.2			
Knowledge of the Reproductive Cycle: Percent of boys and girls						
who report that women is likely to get pregnant halfway between						
two menstrual periods:						
For boys	1.4	2.4	1.9			
For girls	0.7	0.8	0.8			

# d. Initiation of Sexual Life and Family Planning

Table 20 shows the adolescent perception as to when start sexual activities and importance of being virgin at the time of marriage. Only few adolescents had initiated sexual life, thus the number of people using FP methods was very small.

TABLE 20. INITIATION OF SEXUAL LIFE			
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total
Continuous variable	Average % (n=210)	Average % (n=210)	Average % (n=420)
Sexual Initiation: Adolescents perception of the age men and			
women can start sexual activity:			
Men	18.1	17.2	17.7
Women	18.6	18.2	18.4
	% (n=210)	% (n=210)	% (n=420)
Sexual Initiation: Adolescents perception of the importance for a woman to be virgin until marriage			
For boys:			
Important	91.7	84.3	87.7
Not Important	6.9	7.2	7.1
Don't Know	1.4	7.2	4.5
For boys:			
Important	92.0	93.7	92.8
Not Important	5.8	2.4	4.2
Don't Know	2.2	4.0	3.0
Family Planning: Percent of adolescents with active sexual life by			
gender:			
Boys	11.1	1.2	5.8
Girls	0.0	0.8	0.4
	% (n=8)	% (n=2)	% (n=10)
Family Planning: Percent of adolescents using contraception:			
Boys	37.5	100.0	44.4
Girls	0.0	100.0	50.0
	% (n=210)	% (n=210)	% (n=420)
Percent of adolescent who reported that his/her close male friends			
had sexual intercourse with prostitutes, according to			
Boys	24.6	10.4	16.9
Girls	15.2	7.6	11.5

# e. Teenage Pregnancy

There were not girls with a past pregnancy, and most (90%) would not agree that having sex may give them popularity among peers.

TABLE 21. TEENAGE PREGNANCY: QUESTIONS ONLY FOR GIRLS AND QUESTIONS FOR BOYS AND GIRLS			
Indicators	Navoi & kiziltepa % (n=210)	Konimeh & Nurata % (n=210)	Total % (n=420)
Teenage Pregnancy: Percent of girls who have ever been pregnant	0.0	0.0	0.0

Teenage Pregnancy: Perception of adolescents who agree or			
disagree with the following statement: "Having sex while I'm a			
teenager would be a way to be popular"			
For boys:			
Disagree	88.9	92.7	90.9
Not Sure	5.6	1.2	3.2
Agree	5.6	6.1	5.8
For girls:			
Disagree	96.4	95.3	95.8
Not Sure	1.4	3.1	2.3
Agree	2.2	1.6	1.9

# f. Abortion

According to DHS 2000<sup>2</sup>, total abortion rates (TAR) for all Uzbekistan is 0.9 abortions per woman; in rural than in urban areas (0.9 as rural and 1.1 in urban). The present survey collected some questions on abortion, but due to the small number, only perception of abortion as problem was obtain, which was 52% for boys and 57% for girls, who consider abortion common among adolescent friends.

TABLE 22. FREQUENCY OF ABORTION			
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total
	% (n=210)	% (n=210)	% (n=420)
Abortion: Adolescents perception that abortion is common among			
teenage girls:			
According to boys:	54.2	50.6	52.3
According to girls:	60.1	54.3	57.4

# g. Sexually Transmitted Infections

One of the main purposes of educating adolescent on reproductive health, is for them to protect themselves when initiating sexual activities, therefore, knowing and preventing STI is key. 76% of adolescent respondents have heard about the existence of STI, however, 97.8% were referring to HIV/AIDS; the second highest percentage was for syphilis (12.3%); and when asked specifically about HIV/AIDS, 91.9% responded to know the disease; 44.2% could name at least two ways of transmitting HIV/AIDS and 54.1% motioned at least one way of preventing infection. Only 19.3% know what a condom was and out of them 26.5% responded to know how to use a condom.

TABLE 23. KNOWLEDGE OF STIS AND PREVENTION			
Indicators	Navoi & kiziltepa	Konimeh & Nurata	Total
	% (n=210)	% (n=210)	% (n=420)
Adolescents Knowledge of STIs: Percent of respondents who have heard about STIs	81.9	71.4	76.7
	% (n=170)	% (n=146)	% (n=316)

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<sup>&</sup>lt;sup>2</sup> Uzbekistan Health Examination Survey 2002. Preliminary Report. Ministry of Health of Uzbekistan, State Department of Statistics, MEASURE DHS+ ORC Macro. May 2003.

STIs adolescent respondents spontaneously reported knowing:			
Gonorrhea	1.8	0.0	0.9
Syphilis	14.7	9.6	12,3
Genital Herpes	0.6	0.7	0.6
Hepatitis	3.5	0.7	2.2
Clamydia	1.8	0.0	0.9
HIV/AIDS	97.1	98.6	97.8
	% (n=210)	% (n=210)	% (n=420)
Adolescents Knowledge of HIV/AIDS: Percent of respondents who have heard about HIV/AIDS	95.2	88.6	91.9
	% (n=200)	% (n=186)	% (n=386)
Adolescents Knowledge of HIV/AIDS Transmission: Percent of adolescent respondents who can name at least two ways how HIV/AIDS is transmitted	34.5	33.9	44.2
Adolescents Knowledge of HIV/AIDS Prevention: Percent of respondents who can name at least ONE way to prevent HIV/AIDS transmission	61.0	46.8	54.1
	% (n=210)	% (n=210)	% (n=420)
Adolescents Knowledge of HIV/AIDS Prevention: Percent of adolescent respondents who report knowing what is a condom	20.5	18.1	19.3
	% (n=43)	% (n=38)	% (n=81)
Adolescents Knowledge of HIV/AIDS Prevention: Percent of adolescent respondents who report knowing how to use a condom	35.6	15.8	26.5

# VI. GENERAL CONCLUSIONS AND DISCUSSION

The baseline studies indicated notable differences between the populations of Navoi and Kiziltepa Rayons and Konimeh and Nurata Rayons (See Annex A: Baseline Survey Report). The baseline study population was predominantly rural (95%), coverage and access to health services were similar, and the living conditions were reported about the same. Therefore, the fact that Project HOPE has worked four years in the Rayons of Navoi and Kiziltepa could have caused a remarkable effect on the populations' health conditions and at the health service delivery. This fact will facilitate project expansion to the new rayons by using use the old rayons as demonstration centers and promoting health workers exchange and professional visits.

The general results of the study demonstrate the advantages experienced by the Uzbek in areas such as education, access to health services, and access to written communication and mass media. However the level of knowledge in child and reproductive health were low among all levels of the surveyed population. A large percent (96%) of the women interviewed said they had immunized their children at least once and coverage was 58% (through their testimony). The MOH services statistics showed a 100% access and coverage of EPI. The Ministry of health does not give the immunization cards to families, so they are not fully aware of the full immunization schedule and when their children need to be immunized. Project HOPE and Oblast Health Department should assure that immunization education is established and let families possess some type of EPI card.

One of the largest differences between the old and new Rayons were on the breastfeeding indicators. Breastfeeding initiation within the first hour after birth was 81.7% for the old Rayons and 43.5% in the new ones; exclusive breastfeeding rate was 81.3% in the old Rayons and 48.4%

in the new ones. The difference can be directly attributable to the fact that Project HOPE has established the Baby-Friendly Hospital strategies in the old Rayons, together with a thorough education strategy. The new project will replicate this same experience in the new Rayons and will use already certified Baby-Friendly Clinics as training center for health staff of the new Rayons and the Oblast is general.

A problem observed in new and old Rayons was the introduction of weaning foods to children 6-9 month of age. In both cases the percentage was low. The project is doing a good job promoting breastfeeding, but must also educate mothers how to introduce solid and semisolid foods by means of maintaining breastfeeding, the quantity and quality of foods, and the introduction of micronutrients (iron, iodine and Vitamin A).

In the case of diarrhea and respiratory infections, families generally seek aid from health facilities. However, low percent of mothers reported administering more liquids and breast-feeding when children have diarrhea and oral rehydration treatment was not common in each of the communities. A large percentage of the population said they decreased the amount of food they fed to children during diarrheal illness. Furthermore, more education is needed with respect to the signs of dehydration and to determining when a child has a complicated diarrheal disease and needs medical attention. Families recognize respiratory difficulty as a symptom of serious illness, but they do not associate it with pneumonia. They are confused about key indications that determine if a child has pneumonia and needs medical treatment.

In addition and regarding IMCI management, health services do not have the materials necessary to provide counseling and appropriate case management. The project should develop and/or disseminate counseling materials and adapted case management protocols for all levels of health care system. Also essential medicines and drugs were scattered and inconsistently among primary health care services. Only hospital had the basic set of medicines and supplies. Project HOPE might donate some medicines as part of the project, but it is more important to strengthen the monitoring and logistic systems to assure the constant availability of the essential drugs and medicines.

In the section referring to safe motherhood, access and coverage was 100%. The population sought aid primarily to the maternity houses for all peri-natal conditions. Only few cases did not deliver in a health facility due to accidents or that the delivery occurred on the way to the health service. The population was reportedly satisfied with the services they received. With respect to interviewed mothers, they had received some education and counseling of women's health issues, but less than half could mention peri-natal danger signs that would cause them to go to a health facility. The Uzbek MOH does not provide Tetanus Toxoid, only immunoglobulin in a suspicious case of infection; neither has it provided iron foliate to pregnant women, even though anemia has been reported as an important cause of consultation. Therefore, the project will focus on health education on the main signs and symptoms of obstetrical complications, counseling during all phases of pregnancy and delivery, and will focus on monitoring quality of care and counseling at the health facility level. With the exception of the maternity house, primary health services do not have the necessary supplies and medicines, and there were not case management protocols and IEC/Counseling materials, not even at the maternity house. Thus, the project will have to adapt and disseminate existing protocols and materials in the project Rayons and Oblast.

The level of education of the women interviewed does not seem to be related to their knowledge of reproductive health issues. The level of knowledge in reproductive health and sexuality was consistently low among all levels of the surveyed populations (mothers, women of reproductive age and adolescents). Ignorance persisted towards modern birth spacing methods and when women are more fertile within their reproductive cycle, therefore, methods based on self-awareness would not have any effect at the present time. In addition, the survey showed an overextended use of IUD. The survey did not explore whether the extreme high numbers of IUD users are lack of proper counseling and informed choice, or just lack of availability of other methods. In any case, the HFA showed that there was a severe shortage of FP methods in all levels of the health care system, and a total lack of proper counseling materials, with the exception of few flyers and brochures.

Knowledge of reproductive health and sexuality was extremely low when interviewing adolescents; 3.9% of boys and 13.2% of girls knew that there are days when women are more likely to get pregnant, and only 1.3% reported that women are likely to get pregnant half point between menstrual cycles. Besides HIV/AIDS, the percentage of adolescent who ever heard about STIs was also low. Cultural believes regarding marriage and family are strong. Men and women get married at an average of 20 years of age for women and 21 for men, and usually, families take part in the decision as to whom they will marry, so early marriage is not perceived as a problem, only the lack of knowledge of their own sexuality when they initiate family and sexual life. During the results analysis meetings and discussing about sexuality with interviewers (mostly female health staff and health educators), they confirmed that girls are usually not explain about menstruation, and they learned when they have the first menstrual bleeding, which causes enormous fear and confusion. Thus there are several problems to address when educating adolescents. The project will enforce sexual education at the school level. Parents also need to know how to talk with their children about sexuality and more IEC-Counseling materials need to be developed, field-tested and disseminated among the adolescent population.